

## REMARKS/ARGUMENTS

### *Status of Claims*

Claims 1, 20, 30, and 42 have been amended.

Claims 3, 18, 21, 28, 31, 39, 41 and 43 have been canceled.

As such, claims 1-2, 4-17, 19-20, 22-27, 29-30, 32-38, 40, and 42 are currently pending in this application.

Applicants hereby request further examination and reconsideration of the presently claimed application.

### *Claim Rejection - 35 USC § 112*

Claims 39-43 stand rejected under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. The specification has been amended to provide support for claims 39-43, and support for the amendment to the specification is provided in the data set forth in Table 1 of the specification. Stated alternatively, the amendments to the specification are textual recitations of facts that are set forth in Table 1, and thus no new matter is added beyond what was already disclosed by reading Table 1.

### *Claim Rejection - 35 USC § 103*

The pending claims stand rejected under 35 USC § 103(a) as being unpatentable over Bergmeister (WO 01/41923). Applicants respectfully submit that the prior art of record does not establish a *prima facie* case of obviousness as to the pending claims as amended herein. According to MPEP 2142, three basic criteria must be met to establish a *prima facie* case of obviousness:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable

expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

Similarly, the fact that the Examiner has the burden of proof with respect to the elements of the *prima facie* case of obviousness is also well defined in MPEP 2142:

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

The Examiner has not met the burden of establishing the *prima facie* case of obviousness because *Bergmeister* does not teach or suggest each and every element as recited in the amended claims.

Independent claim 1 has been amended to include the limitation from canceled dependent claim 39, and now recites in pertinent part "wherein selectivity to ethane for the process is equivalent to or reduced in comparison to a process employing a catalyst having equal to or greater than 0.3 weight percent potassium and a fluoride to potassium molar ratio of equal to or greater than 2:1." Independent claim 20 has been amended to include the limitation from canceled dependent claim 41, and now recites in pertinent part "wherein selectivity to ethylene for the process is equivalent to or increased in comparison to a process employing a catalyst having equal to or greater than 0.3 weight percent potassium and a fluoride to potassium molar ratio of equal to or greater than 2:1." Independent claim 30 has been amended to include the limitation from canceled dependent claim 43, and now recites in pertinent part "wherein  $TI_{cos}$  for the process is reduced in comparison to a process employing a catalyst having equal to or greater than 0.3 weight percent potassium and a fluoride to potassium molar ratio of equal to or greater than 2:1." These limitations to the independent claims are not disclosed in the prior art of record and correspond to the surprising results demonstrated in Table 1 of the specification.

More specifically, in the examples as described on page 8, lines 10-15 of the specification, Applicants demonstrated that the recited catalysts provide advantageous and

surprising results when used in the presence of sulfur impurities. As discussed during the previous Examiner interview, it is surprising that Applicants were able to achieve equivalent or better performance in the presence of sulfur impurities from a catalyst composition having less than 0.3 weight % potassium and a molar ratio of fluoride to potassium of less than 2:1. The equivalent or better performance is shown by comparing the results of inventive catalyst C in Table 1 with the results of control catalysts A and B. Specifically, catalyst C has an equivalent or better ethane selectivity (as is recited in claims 1 and 40), an equivalent or better ethylene selectivity (as is recited in claims 20 and 42), and a better clean up temperature in the presence of carbonyl sulfide (as is recited in claim 30). These surprising results support the patentability of the pending claims and rebut the obviousness of same, and the pending claims are commensurate in scope with the demonstrated surprising results. To the extent that the Examiner continues to assert that the evidence of nonobviousness is not commensurate in scope with the claims, Applicants respectfully request that the Examiner elaborate and explain in detail the alleged shortcomings.

### CONCLUSION

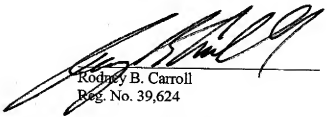
Consideration of the foregoing amendments and remarks, reconsideration of the application, and withdrawal of the rejections is respectfully requested by Applicants. No new matter is introduced by way of the amendment. It is believed that each ground of rejection raised in the Office Action dated October 17, 2006 has been fully addressed. If any fee is due as a result of the filing of this paper please appropriately charge such fee to Deposit Account Number 50-1515 of Conley Rose, P.C., Dallas, Texas. If a petition for extension of time is necessary in order for this paper to be deemed timely filed, please consider this a petition therefore.

If a telephone conference would facilitate the resolution of any issue or expedite the prosecution of the application, the Examiner is invited to telephone the undersigned at the telephone number given below.

Respectfully submitted,

Date: \_\_\_\_\_

1-17-07



Rodney B. Carroll  
Reg. No. 39,624

ATTORNEY FOR APPLICANTS

CONLEY ROSE, P.C.  
5700 Granite Parkway, Suite 330  
Plano, Texas 75024  
Tel: (972) 731-2288  
Fax: (972) 731-2289